S/N NEW FILING PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

EYAL ET AL.

Examiner:

UNKNOWN

Serial No.:

**NEW FILING** 

Group Art Unit:

UNKNOWN

Filed:

HEREWITH

Docket No.:

6786.78USC5

Title:

LACTIC ACID PROCESSING; METHODS; ARRANGEMENTS; AND,

**PRODUCTS** 

**CERTIFICATE UNDER 37 CFR 1.10**:

"Express Mail" mailing label number: EV372667605US

Date of Deposit: February 26, 2004

I hereby certify that this paper or fee is being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Commissioner for Patents, Mail Stop PATENT APPLICATION, P.O. Box 1450, Alexandria, VA 22313-1450.

Name: Teresa Anderson

## **INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(b))**

Mail Stop PATENT APPLICATION Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted within three months of the filing date of the above-identified application, which is not an application under 37 C.F.R. § 1.53(d). Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(d), a copy of each document or other information listed on the enclosed Form 1449 is not provided because it was previously cited by or submitted to the U.S. Patent and Trademark Office in parent application, U.S. Serial No. 10/390,958 filed on March 18, 2003.

In accordance with 37 C.F.R. §1.98(a)(2)(i), a copy of the U.S. patents and U.S. patent publications listed on the enclosed Form 1449 are not provided, as this application was filed after June 30, 2003.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted

MERCHANT & GOULD P.C. P.O. Box 2903 Minneapolis, MN 55402-0903 (612) 332-5300

Date: February 76, 2004

23552

PATENT TRADEMARK OFFICE

Dennis R. Daley

Reg. No. 34,994

DRD:PLSklg

Date Mailed: FEBRUARY 26, 2004 Sheet 1 of 5

FOR	M	14	149	1

## INFORMATION DISCLOSURE STATEMENT

Docket Number: 6786.78USC5

Application Number: NEW FILING

IN AN APPLICATION

(Use several sheets if necessary)

Applicant: EYAL ET AL.
Filing Date: HEREWITH

Group Art Unit: UNKNOWN

	1	U	I.S. PATENT DOCUMEN	TS	<del></del>	
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1,906,068	04/25/1933	Jenemann			
	2,223,797	12/03/1940	Tindall			
	2,261,926	11/04/1941	Nolte et al.			
	2,331,948	10/19/1943	Ward et al.			
	2,350,370	06/06/1944	Schopmeyer et al.			
	2,415,558	02/11/1947	Hesler et al.			
	2,539,472	01/30/1951	Ratchford et al.			
	2,710,880	06/14/1955	Filachione et al.			
	4,142,023	02/27/1979	Bornstein et al.			
	4,275,234	06/23/1981	Baniel et al.			
	4,282,323	08/04/1981	Yates			
	4,334,095	06/08/1982	Baniel			
	4,405,717	09/20/1983	Urbas .			
-	4,444,881	04/24/1984	Urbas			
	4,467,034	08/21/1984	Voelskow et al.			
	4,698,303	10/06/1987	Bailey et al.			
	4,769,329	09/06/1988	Cooper et al.			
	4,771,001	09/13/1988	Bailey et al.			
	5,068,418	11/26/1991	Kulprathipanja et al.			<del>, , , , , , , , , , , , , , , , , , , </del>
	5,068,419	11/26/1991	Kulprathipanja et al.			
	5,071,754	12/10/1991	Walkup et al.			
	5,132,456	07/21/1992	King et al.			
	5,138,074	08/11/1992	Bellis et al.			
	5,142,023	08/25/1992	Gruber et al.			
	5,210,296	05/11/1993	Cockrem et al.			
	5,247,058	09/21/1993	Gruber et al.			

EXAMINER	DATE CONSIDERED

Date Mailed: FEBRUARY 26, 2004 Sheet 2 of 5

<b>FORM</b>	1449*
-------------	-------

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

Docket Number: 6786.78USC5

Application Number:
NEW FILING

IN AN APPLICATION

Applicant: EYAL ET AL.

Filing Date: HEREWITH Group Art Unit: UNKNOWN

	1		U.S. PATENT DOCUMEN	VTS	<del>,</del>	<del></del>
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,247,059	09/21/1993	Gruber et al.			
	5,258,488	11/02/1993	Gruber et al.			
	5,274,073	12/28/1993	Gruber et al.			
	5,338,822	08/16/1994	Gruber et al.			
	5,349,084	09/20/1994	Shishikura et al.			
	5,357,034	10/18/1994	Fridman et al.			
	5,357,035	10/18/1994	Gruber et al.			
	5,359,026	10/25/1994	Gruber			
	5,420,304	05/30/1995	Verser et al.			
	5,446,123	08/29/1995	Gruber et al.			——————————————————————————————————————
	5,475,080	12/12/1995	Gruber et al.			
	5,484,881	01/16/1996	Gruber et al.			
	5,510,526	04/23/1996	Baniel et al.			
	5,521,278	05/28/1996	O'Brien et al.			
	5,525,706	06/11/1996	Gruber et al.			
	5,536,807	07/16/1996	Gruber et al.			
	5,539,081	07/23/1996	Gruber et al.			
	5,585,191	12/17/1996	Gruber et al.			
	5,594,095	01/14/1997	Gruber et al.			
,,,,,	5,641,406	06/24/1997	Sarhaddar et al.			
	5,681,728	10/28/1997	Miao et al.			
<u> </u>	5,712,152	01/27/1998	Dequin et al.			
	5,746,920	05/05/1998	Boergardts et al.			
	5,773,653	06/30/1998	Baniel			77
	5,766,439	06/16/1998	Eyal et al.			
	5,780,276	07/14/1998	Baniel			
	5,786,185	07/28/1998	Tsao et al.			· · · · · · · · · · · · · · · · · · ·

EXAMINER	DATE CONSIDERED

Date Mailed: FEBRUARY 26, 2004 Sheet 3 of 5

(Use several sheets if necessary)

FORM 1449*	INFORMATION DISCLOSURE STATEMENT	Docket Number: 6786.78USC5	Application Number: NEW FILING
IN AN APPLICATION		Applicant: EYAL ET AL.	·

Filing Date: HEREWITH

Group Art Unit: UNKNOWN

•			U.S. PATENT DOCUMEN	TS			
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS		G DATE ROPRIATE
	5,831,122	11/03/1998	Eyal				
	5,892,109	04/06/1999	Baniel et al.				
	5,965,771	10/12/1999	King et al.				
	6,229,046	05/08/2001	Eyal et al.				
	6,320,077	11/20/2001	Eyal et al.				
	6,534,679 B2	03/18/2003	Eyal et al.				
·····		FO	REIGN PATENT DOCUM	ENTS			<del></del>
	DOCUMENT NO.	DATE	. COUNTRY	CLASS	SUBCLASS	TRANS	SLATION
						YES	NC
	WO 85/01064	03/14/1985	PCT				
	WO 93/00440	01/07/1993	PCT				
	WO 93/06226	04/01/1993	PCT				
	WO 95/03268	02/02/1995	PCT				
	WO 95/25081	09/21/1995	PCT				
	WO 95/32301	11/30/1995	PCT				
	WO 97/11047 A1	03/27/1997	PCT			Abstract Only	
	WO 97/35489	10/02/1997	PCT			1	
	WO 98/15517	04/16/1998	PCT				
	WO 98/15519	04/16/1998	PCT				
	33552	07/01/1969	IL				х
	907,321	10/03/1962	GB				
	2 251 864	07/22/1992	GB .				
	0 076 123	04/06/1983	EP				
	0 159 585 A2	10/30/1985	EP				
	0 216 221 A2	04/01/1987	EP				

		***************************************	
EXAMINER	DATE CONSIDERED		

Date Mailed: FEBRUARY 26, 2004 Sheet 4 of 5

FORM 1449* INFORMATION DISCLOSURE STATEMENT	Docket Number: 6786.78USC5	Application Number: NEW FILING	
IN AN APPLICATION	Applicant: EYAL ET AL.		
(Use several sheets if necessary)	Filing Date: HEREWITH	Group Art Unit: UNKNOWN	

DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO
 0 308 064	03/22/1989	EP				
 0 517 242 A2	12/09/1992	EP				
0 614 983 A	09/14/1994	EP				
3222837 A1	12/22/1983	DE				х
27 00 644	07/21/1977	DE			-	х
1 049 846	02/05/1959	DE				x
197 18 608 A1	11/05/1998	DE			Abstract	
197 47 790 C1	11/26/1998	DE			Abstract	
 ОТН	IER DOCUMEN'	ΓS (Including Author, Title, D	ate, Pertinent Page	es, Etc.)	•	•
Chen et al.,  Cheng et al.,  "Lactic Aci Davison et "A Propose Dequin et a "Mixed Lac	Appl. Biochem. b., 1991, Journal oj de Production From al., 1992, Biotechned Biparticle Fluidid., 1994, Bio/Techetic Acid-Alcoholic	IL 61801; 20 pages (undated). iotechnol. (1997), 63-65, 435-67. Industrial Microbiology, Vol. Enzyme-Thinned Corn Starce aclogy and Bioengineering, Vol. 22ed-Bed for Lactic Acid Ferminology, 12:173-177 of Fermentation by Saccharom, Abstracts, Vol. 107, No. 1, 198	448. 7, pgs 27-34 h Using Lactobaciol. 39, pgs 365-368 entation and Simu	3 Itaneous Adsorption ressing the Lactoba	cillus casei L(+	)-LDH
 Region," Z. Genga, et a "Mitochono Gonzalez-\ "Production coryniform Mehaia, M.	Jacquet, et al., "Typing of Listeria monocytogenes by Restriction Polymorphism of the Ribosomal Ribonucleic Acid Ge Region," Zbl. Bakt., 276:356-365, (1992).  Genga, et al., 1983, Microbiologica, 1:1-8  "Mitochondrial NAD, L-Lactate Dehydrogenase and NAD, D-Lactate Dehydrogenase in the Yeast Saccharomyces Cere Gonzalez-Vara et al., 1996, Journal of Fermentation and Bioengineering, Vol. 81, No. 6, pgs 548-552  "Production of L(+) and D(-) Lactic Acid Isomers by Lactobacillus casei subsp. casei DSM 20011 and Lactobacillus coryniformis subsp. torquens DSM 20004 in Continuous Fermentation",  Mehaia, M., et al., "Lactic Acid from Acid Whey Permeate in a Membrane Recycle Bioreactor", Enzyme Microb. Tech.					es Cerevisi
 Peters, E.,	8:289-292 (May 1986).  Peters, E., "Microbiological and Biochemical Characterization of the Steeping Phase of the Corn Wet Milling Process" (abs of a thesis submitted in partial fulfillment of requirements for degree), University of Iowa, pp. i-v, 39-57, 62-64, 77-79, 83-105-107, 115 (May 1996).  Grimont, F., et al., "Ribosomal Ribonucleic Acid Gene Restriction Patterns as Potential Taxonomic Tools," Ann. Inst.					

· · · · · · · · · · · · · · · · · · ·	
EXAMINER	DATE CONSIDERED

Date Mailed: FEBRUARY 26, 2004 Sheet 5 of 5

FORM 1449* INFORMATION DISCLOSURE STATEMENT		Docket Number: 6786.78USC5	Application Number: NEW FILING	
IN AN APPLICATION		Applicant: EYAL ET AL.	Applicant: EYALET AL.	
(Use several sheet	ts if necessary)	Filing Date: HEREWITH	Group Art Unit: UNKNOWN	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
Nakamura, L.K. et al., 1977, <i>Developments in Industrial Microbiology</i> , Proceedings of the Thirty-Fourth General Meeting of the Society for Industrial Microbiology Held at East Lansing, MI, August 21-26, 1977  "Microbiology of Corn Fermented with Swine Waste"
Nakahara, Tadaatsu, et al., Chemical Abstracts, Vol. 118, No. 5, 1993 "Manufacture of D-lactic acid from 1,2-propanediol with Pseudomonas", p. 559
Porto et al., 1994, Med. Fac. Landbouww. Univ. Gent., 59/4b:2303-2311 "Production of Lactic Acid from Engineered Saccharomyces Cerevisiae Cells"
Porro et al., 1995, Biotechnology, 11:294-298 "Development of Metabolically Engineered Saccharomyces cerevisia Cells for the Production of Lactic Acid"
Ricker et al., 1980, J. Separ. Proc. Technol. 1(2), pgs 23-30 "Solvent Extraction with Amines for Recovery of Acetic Acid from Dilute Aqueous Industrial Streams",
Rixey, W. et al., "Fixed-Bed Mulisolute Adsorption Characteristics of Nonwet Adsorbents", AIChE Journal, Vol. 35, No. 1, pg 69-74 (January 1989)
Rixey, W. et al., "Wetting and Adsorption Properties of Hydrophobic Macroreticular Polymeric Adsorbents", <i>Journal of Colloid and Interface Science</i> , Vol. 131, No. 2, pgs 320-332 (September 1989)
Roy, T.B.V. et al., 1982, <i>Biotechnology Letters</i> , 4(8):483-488  "Lactic Acid Production by <u>Lactobacillus Delbreuckii</u> in a Hollow Fiber Fermenter"
Roy, T.B.V. et al., 1983, <i>Biotechnology Letters</i> , 5(10):665-670  "The Application of Cell Recycle to Continuous Fermentative Lactic Acid Production"
San-Martin, M. et al., "Liquid-Liquid Extraction of Lactic Acid with Alamine 336", Journal of Chemical Technology and Biotechnology, Vol. 65, No. 3; March 1, 1996; pages 281-285
Stanbury, P., et al., "Principles of Fermentation Technology," 1984, Pergamon Press, pages 33-37
Stenroos, S.L. et al., 1982, <i>Biotechnology Letters</i> , 4(3):159-164  "Production of LLactic Acid with Immobilized <i>Lactobacillus Delbrueckii</i> "
Stieber, R.W. et al., 1981, Biotechnology and Bioengineering, XXIII(2):534-549 "Dialysis Continuous Process for Ammonium Lactate Fermentation: Simulated and Experimental Dialysate-Feed, Immobilized-Cell Systems"
Yabannavar, V., et al., "Extractive Fermentation for Lactic Acid Production", <i>Biotechnology and Bioengineering</i> , 37:1095-1100 (1991).
Yang et al., 1995, Applied Biochemistry and Biotechnology, Vol. 51/52, pgs. 57-71 "Lactic Acid Production by Pellet-Form Rhizopus oryzae in a Submerged System
Ye et al., 1996, Journal of Fermentation and Bioengineering, Vol. 81, No. 3, pgs 240-246 "Performance Improvement of Lactic Acid Fermentation by Multistage Extractive Fermentation"

EXAMINER	DATE CONSIDERED	